

DOCUMENT RESUME

ED 091 288

SO 007 485

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TITLE Cross-Cultural Research Methodology in Education.
PUB DATE Mar 73
NOTE 27p.; Paper presented to the National Convention of the Comparative and International Education Society (San Antonio, Texas, March 25-27, 1973); For related document, see ED 079 010

EDRS PRICE MF-\$0.75 HC-\$1.85 PLUS POSTAGE
DESCRIPTORS *Behavioral Sciences; *Comparative Education; *Cross Cultural Studies; Educational Research; Educational Trends; Ethical Values; Literature Reviews; Measurement Instruments; Research Design; *Research Methodology; *Research Problems; Scientific Principles; Speeches

ABSTRACT

The comparative approach in education involves the cross-cultural method. A lack of clear and precise scientific research is one of the most serious problems in the study of cultures. This study investigates the cross-cultural method in education as a part of the behavioral sciences. The first part of the paper describes the early developments in cross-cultural research designs and the second part, the specification of some of the elements in cross-cultural methodology. The latter section includes a discussion of objectives in cross-cultural research, stages in research, methodological issues, problems of translating instruments across different cultures, and ethical issues. A summary section notes that the early historical development of cross cultural research indicates an anthropological influence in research methodology while contemporary methodology is the product of a more interdisciplinary approach. It is finally observed that while scientific procedures are the modern trend, a number of ethical and philosophical elements still existing render the evaluations of cultures complicated and highly subjective. (Author/KSM)

ED 091288

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CROSS-CULTURAL RESEARCH METHODOLOGY IN EDUCATION*

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INTRODUCTION

The comparative approach in education involves the cross-cultural method. Lack of clear and precise scientific research is one of the most serious problems in the study of cultures. Education as a discipline needs to examine very seriously the implications arising from educational objectives which have been designed for a wide range of cultures or sub-cultures.

The real value of the cross-cultural method in education lies, not in the discovering of facts for a single culture, but in the obtaining of empirical data to redesign educational objectives, implementation and evaluation of educational programs and in finding means to reduce ethnocentrism in the society at large. Furthermore, Noah and Esckstein express that "the field of comparative education is best defined as an intersection of the social sciences, education, and cross-national study."¹

*Presented to the Comparative and International Education Society, 1973 National Convention, San Antonio, March 25-27.

¹ Harold J. Noah and Max A. Esckstein. Toward a Science of Comparative Education. (London: The Macmillan Company, 1969, p. 121.

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Under these circumstances, cross-cultural research is mandatory in comparative education when more than two types of validation are involved.

The purpose of this study is to investigate, from historical and descriptive viewpoints, the cross-cultural method in education as a part of the behavioral sciences. The first part of the paper describes the early developments in cross-cultural research designs and the second part, the specification of some of the elements in cross-cultural methodology.

EARLY DEVELOPMENTS IN CROSS-CULTURAL RESEARCH

In recent years, a new branch of psychology and education, cross-cultural psychology, has become an important element in the understanding of human development. Unlike more traditional fields of psychology, cross-cultural psychology looks for diversity as well as similarities across nations. Furthermore, cross-cultural replications are performed to verify generalizations developed in a specific culture.

The cross-cultural method in psychology and education derived primarily from theories of cultural evolution in the field of anthropology. One of the first effective attempts to quantify, measure, and correlate ethnographic data to scientifically tested theoretical postulates is generally ascribed to Edward B. Tylor.

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In 1889, he presented a paper entitled "On a Method of Investigating the Development of Institutions: Applied to Laws of Marriage and Descent."²

It was at the meeting of the Royal Anthropological Institute of Great Britain, under the presidency of Sir Francis Galton, who pointed out by scholarly investigation for the first time that the cultural units were classified under degrees of independence and concurrence. Although Tylor's study was, by the present research methodology inadequate, historically, it is a very important contribution to the evolution of a scientific methodology in cross-cultural research.

From 1889 to 1937 only, two significant studies were presented in a cross-cultural perspective. The first one was done by H. J. Nieboer in 1910³ in order to relate slavery as a part of industrial systems. The second one was research on the correlation between material culture and social institutions as reported in 1915 by Hobhouse, Wheeler, and Ginsberg.⁴

However, in the area of the Comparative Method in Anthropology, the period noted above, was very crucial in cross-cultural

² Edward B. Tylor, "On a Method of Investigating the Development of Institutions: Applied to Laws of Marriage and Descent," Journal of the Anthropological Institute of Great Britain and Ireland, XVIII, (1889), pp. 245-272.

³ H. J. Nieboer, Slavery as an Industrial System (The Hague: M. Nijhoff), 1910.

⁴ L. T. Hobhouse, G. C. Wheeler, and M. Ginsberg, The Material Culture and Social Institutions of the Simpler Peoples: An Essay in Correlation (London: Chapman and Hall), 1915.

research. For example, Franz Boas in "The Limitations of the Comparative Method,"⁵ reported in 1896, a program which involved: (a) detailed studies of individual tribes in their cultural and regional context and, (b) the comparisons of these tribal histories as a means of formulating general laws. He compared the historical method with the comparative method. Sapir in 1916, Wissler in 1926, Lowie in 1919, Benedict in 1934, Kroeber in 1935 and many others provided a series of cultural studies utilizing distributional analyses of cultural traits for the study of culture process.

Another important development in anthropology particularly valuable to cross-cultural psychology, in the same period, refers to culture and personality field research which is generally attributed to Margaret Mead's study on "Coming of Age in Samoa"⁶ and the work of Malinowski on "Sex and Repression in Savage Society."⁷ These studies of child development and family patterns created quite a sensation throughout the world because of their implications for psychoanalytic theory. In the ensuing years, numerous anthropologists undertook similar psychodynamic case studies of personality development in exotic cultures. Kardiner, for example, in 1939, admitted

⁵ Franz Boas, "The Limitations of the Comparative Method in Anthropology," Science, IV, (1896), pp. 901-908.

⁶ Margaret Mead, Coming of Age in Samoa (New York: William Morrow & Co.), 1928.

⁷ Bronislaw Malinowski, Sex and Repression in Savage Society. (New York: Harcourt Brace), 1937.

the possibility of applying psychoanalytic techniques in socio-anthropological investigations, and established the concept of the basic personality type.⁸ That is, that personality configurations are shared by the majority of the members of any given society, because of their having had many early experiences in common.

Although these anthropological studies contributed in some ways to the development of cross-cultural research methodology, they never equaled the Tyler approach. The Cross-Cultural method was renewed by George Murdock in 1937 in a test of correlations between the evolutionary priority of matrilineal and patrilineal institutions.⁹ Since that time, cross-cultural research methodology has reached a high level of scientific development not only in anthropology, but also in psychology, sociology and education.

Murdock's method was essentially the same as Taylor's. Both used the statistical-inductive method in the treatment of the data. Later, however, Murdock started to explain the hypothetical method which implies that one starts from a hypothesis, so that "all logical or rational operations are performed prior to the final empirical and statistical test."¹⁰

⁸ A. Kardiner, The Individual and His Society (New York: Columbia University Press), 1939. Recently, F. L. Hsu has coined the term "psychological anthropology" to replace the term "culture and personality".

⁹ George P. Murdock, "Correlations of Matrilineal and Patrilineal Institutions," Studies in the Science of Society (New Haven: Yale University Press), 1937, pp. 445-470.

¹⁰ George P. Murdock, Social Structure (New York: Macmillan Co.), 1949, p. 127.

Under this approach, Murdock has been for many years, a leader in applying cross-cultural method. The wide use by others of his Cross-Cultural Survey and his World Ethnographic Sample are obvious examples of his influence.

In 1949, an inter-university organization supported financially by the Carnegie Corporation was formed under the title of "Human Relations Area Files." One of its main objectives is to duplicate the existing files of Murdock's Cross-Cultural Survey for the members and to distribute additional data obtained by the Survey among them. It was criticized as lacking in important value to anthropology and psychology because the problem of interpretation of the files occurred in the use of this catalogue of tribes and because it cannot be determined that the samples taken are representative of the whole world.

An important contribution to cross-cultural methodology was given in 1953 by Whiting and Child using descriptive data on many cultures recorded in the Human Relations Area Files. Later, Whiting and Whiting¹¹ outlined three aspects of the concept of culture. First they regarded culture as the body of knowledge transmitted from one generation to the next about how to do things or how to get things done, the techniques of the society. Second, it is the belief system of the culture, the ethnoscientific and religious dogma. And third, it is the ethnical system or set of values which pro-

¹¹J. W. M. Whiting and B. B. Whiting, "Contributions of Anthropology to the Methods of Studying Child Rearing," Handbook of Research Methods in Child Development, ed. P.H. Mussen (New York: John Wiley & Sons), 1960.

vides guidance as to what is good or bad, what is important or trivial, and the relative merits of various goals and behaviors in a hierarchial sense. By this approach, a given nation such as the United States or Colombia may have wide variations in culture within its own borders, even overcoming the lack of a common language or a dominant culture which sets the tone for the nation as a whole. With them the modern approach to cross-cultural methodology rests in testing hypothesis which have been derived from theories of cultural evolution, theories of the integration of culture, and theories of individual and social psychology.

COMPARATIVE METHOD IN CROSS-CULTURAL PERSPECTIVE

From these aforementioned concepts, we seem to have three different types of comparative studies; (a) Cross-cultural, (b) Cross-national, and (c) Inter-cultural. But Frijda and Jahoda¹² did not consider differences between cross-cultural research and cross-national research. They argue that the term "cross-national" is artificial since they involve no fundamental contrasts in methodology, cross-national studies will here be included under the heading of cross-cultural.¹³ However, there is a fundamental distinction between them and methodology does not have anything to do with content of a discipline. As a matter

¹²N. Frijda and G. Jahoda, "On the Scope and Methods of Cross-Cultural Research," International Journal of Psychology, I, (1966), pp. 110-127.

¹³N. Frijda and G. Jahoda, Ibid., p.110.

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of fact, all sciences use the same methodology; it is the scientific method but there may be different techniques. The fundamental distinction becomes pertinent if we understand that while the "Latin culture" involves many nations with different cultures and the circumstance of different nationalities, it is possible to generalize commonalities which are derived in order to differentiate each from other cultures, such as the "Anglo-Saxon culture."

Margaret Mead has used the term "cross-national" deliberately to indicate that she is dealing not with relationships between nations, self-maximizing competitive national units, but between the peoples of different nations."¹⁴

Cross-Cultural is a wider term than cross-national because cross-cultural research looks for diversity across regions, nations, languages and even throughout the entire worlds of contemporary man. According to Whiting, the cross-cultural method in anthropology can be defined as the method which "utilizes data collected by anthropologists concerning the customs and characteristics of various peoples throughout the world to test hypotheses concerning human behavior."¹⁵ So, we can say that cross-cultural research refers to studies which employ two or more cultures or societies. According

¹⁴Margaret Mead, Anthropology: A Human Science (Princeton, N.J.: D. Van Nostrand Company), 1964, p.107.

¹⁵John M. W. Whiting, "Methods and Problems in Cross-Cultural Research," Handbook of Social Psychology, ed. G. Lindzey and Aronson (Reading, Mass: Addison-Wesley), 1970, p.693.

to Murdock, "The data of culture and social life are susceptible to exact scientific treatment as are the facts of the physical and biological sciences. It seems clear that the elements of social organization, in their permutations and combinations, conform to natural laws of their own with an exactitude scarcely less striking than that which characterizes the permutations and combinations of atoms in chemistry and of genes in biology."¹⁶

However, a deeper review of the literature suggests a number of approaches of what the comparative method in a cross-cultural perspective is. For Oscar Lewis, anthropology is cross-cultural in nature while comparison is "a generic aspect of human thought rather than a special method of anthropology or any other discipline."¹⁷ Eggan gets away from the comparative method in the title and speaks instead of methods of

¹⁸ comparisons. Whiting defines the cross-cultural method almost

¹⁶George P. Murdock, "Sociology and Anthropology," For a Science of Social Man, ed. John Gillin (New York: The Macmillan Company), 1954, p. 30.

¹⁷Oscar Lewis, "Comparisons in Cultural Anthropology," Readings in Cross-Cultural Methodology, ed. Frank W. Moore (New Haven: Human Relations Area Files), 1961, p. 51.

¹⁸Fred Eggan, "Social Anthropology and the Method of Controlled Comparison," American Anthropologist, LVI, 5, (1954), p. 747.

exclusively in terms of the testing of hypotheses in a universal sample with a high reliance upon statistical techniques.¹⁹ André Köben, in a review of the history of statistical method in social anthropology, notes that statistical studies have serious invalidities because, in most of them, the units compared are not always truly independent and the areas compared are frequently atomized traits rather than functioning wholes.²⁰ These arguments can be refuted by the use of more adequate procedures for defining operational variables.

On the other hand, it is common to see cross-cultural research identified with historical research. For instance, Radcliffe-Brown identifies it with library technique and as the construction of history.²¹ Nadel reduces the scope of cross-cultural method and defines it as the systematic study of similarities and differences through the use of correlation and covariation.²²

For Campbell there are three types of purpose in research

¹⁹ John W. M. Whiting, op.cit., 1970.

²⁰ André J. Köben, "New Ways of Presenting an Old Idea: The Statistical Method in Social Anthropology", Readings in Cross-Cultural Methodology, ed. F. Moore (New Haven: HRAP Press), 1961, pp 166-194. See also, A. J. Köben, "Comparativist and Non-Comparativists in Anthropology," A Handbook of Method in Cultural Anthropology, eds. R. Naroll and R. Cohen (New York: The Natural History Press), 1970

²¹ A. R. Radcliffe-Brown, "The Comparative Method in Anthropology," Journal of the Royal Anthropological Institute, LXXXI, 1, (1951), p.15.

²² S. F. Nadel, The Foundations of Social Anthropology (Glencoe, Illinois: The Free Press), 1951, p. 240.

using cross-cultural dimensions or multinational comparisons. They are: "Confirming and exploring the universality of some relationship or attribute of social man. Natural experiments, in which regions differ in some environmental factor which can be studied using an experimental treatment; and, maximum variability studies."²³ This approach, using the cultural as the experimental treatment is one of the last developments in cross-cultural method. The classic study of this type given by W. H. Rivers on visual illusions²⁴ during 1901 to 1905 was recently revised and fully documented by Segall, Campbell and Herskovits.²⁵ They collected data from fifteen societies showing cultural differences in susceptibility to geometric illusions.

In conclusion, our brief review of the literature has revealed many approaches in cross-cultural methodology. However, no discipline has a method which is only unique to itself. All disciplines are in fact using the same method, the scientific method. They differentiate from each other only to the extent that they serve different functions and thereby are guided by different techniques or interpretations. The logic of the formal scientific approach to knowledge of setting up a hypothesis, developing a

²³D. T. Campbell, "A Cooperative Multinational Opinion Sample Exchange," (Unpublished paper, The University of Texas).

²⁴W. H. Rivers, "Observations on the Senses of the Todas," British Journal of Psychology, I. (1905), pp. 321-396.

²⁵M. H. Segall, D. T. Campbell, and M. J. Herskovits, "Cultural Differences in the Perception of Geometric Illusions," Science, CXXXIX (1963), pp. 769-771.

technique, gathering the data and drawing conclusions and the informal scientific approach involve only three different methods, but they all apply to the study of cultures in the comparative dimension. When the cross-cultural research deviates from its scientific approach, it is dependent not upon its methodology, but upon its practitioners. In other words, while cross-cultural research can be considered as a scientific methodology, not all practitioners of cross-cultural research are systematic scientists. Under this consideration we can operationally define cross-cultural research as the activity of solving problems cross-culturally; this process leads to new knowledge using the scientific method and the comparative technique which are currently accepted as adequate by scholars in the field.

OBJECTIVES IN CROSS-CULTURAL RESEARCH

The main purpose of cross-cultural research in education is the elaboration of general and specific objectives to the cultures involved without distorting an articulate common goal. Generalizations, very common in education, must be supported empirically to satisfy the external validity of the conclusion.

The advantage of the cross-cultural approach as compared with the single-cultural research approach is that the possibilities for misinterpretation are less with the former. An intensive study of a single nation or culture provides rich insight into the society or culture as a functioning organism, but hardly

permits any generalization to other societies or cultures of the same nation.²⁶ Whiting states that:

The advantage of the cross-cultural method are two fold. First it insures that one's findings relate to human behavior in general rather than being bound to a single culture; and second it increases the range of variation of many variables.²⁷

One of the necessary requirements to establish universal scientific laws is that the observed phenomena be applicable to all pertinent environments. In education and psychology behavioral laws need to be tested against the universal man. If this is not done, proposed behavioral laws or general goals can only be accepted in the particular society or culture in which they are found. For this reason, using abstract generalizations about some cultural groups without looking at their relationships with society is methodologically wrong. To achieve this objective in education the cross-cultural method as a part of the comparative approach is the only meaningful tool for obtaining empirical data from the existing educational system.

STAGES IN CROSS-CULTURAL RESEARCH

A cross-cultural research involves, at least four stages
(Holtzman 1965):²⁸

²⁶See: Miguel Escotet. "A Comparison between Mexican-American and South American students: A Cross-Cultural Study." Comparative and International Education Society, San Antonio, March 25-27, 1973.

²⁷John Whiting. op.cit., p. 694.

²⁸W.H. Holtzman. Cross-Cultural Research on Personality Development. (Austin: Institute of Latin American Studies), 1968.

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A. Establishing the purpose of the research and delineating the transcultural variables with respect to their cross-societal, cross-national, cross-communicational and subcultural characteristics.

1. More than two societies or nations and languages would be desirable to produce sufficient diversity in order to eliminate competing, plausible hypothesis or take advantage of subcultural characteristics.
2. Arranging for preliminary meetings and availability of additional personnel as well as research assistants, procedures for training them, techniques for the collection of data, methods and techniques of analysis, and strategies for financing and implementing the study.

B. A pilot study to test out ideas in a preliminary fashion.

1. When the subcultural frame is not available, a demographic survey is necessary.
2. Instruments should be designed, selected and adapted to the cultures under study. Translation, back-translation, measurement of meaning and comparison is essential to validate verbal instruments.
3. Preliminary studies on small samples of subjects in each culture, society or nation.
4. Scoring and coding of data, and chronogramming (time schedule planning).

C. Carrying out the main study.

1. Replication of the pilot study.
2. Elimination of major sources of internal invalidity.

D. Refining the analysis, interpreting the results and publishing them.

1. Researchers from different cultures need full involvement in the analysis and interpretation of the findings to reduce ethnocentrism and cultural bias.
2. Stimulate additional questions and problems deserving of further intensive research.

METHODOLOGICAL ISSUES (Angelini 1964)²⁹

A. The use of scientific methodology

Using scientific tools and approaches found in studying human behavior or educational constructs.

B. The lack of comparability among psychological or educational examiners working in different cultures.

The syntax of the examiner's role relation to the subject may be inextricably embedded in the culture that it becomes confounded with some of the major cultural variables under study.

C. Sampling: minimize the effects of common origin and diffusion.

1. Problems: Heterogeneous culture, size of the country or culture, varied composition of the population in each region, regional geographical and climatic differences, diversity of natural resources and economy, educational opportunities within

²⁹ Arrigo Angelini. "Perspectives and Problems in Cross-cultural Research." IXth Congress of the Interamerican Society of Psychology, 1964, pp. 51-60.

regions, chronological age versus vague terms (such as adolescence, adult, young, first grade, etc.)

2. Solutions: Restricts the universe in order to draw a representative sample but with equivalent criteria in all cultures to be compared; identifying culture type by linguistic criteria; or to limit the sampling bias and measurement of the biases involved in order to control them; measuring of systematic and random errors. Finally, it is recommended to use stratified samples or designs in order to reduce the effects of diffusion.

D. Cultural variables discrimination.

According to Donald T. Campbell, comparison between two cultures are usually uninterpretable because many cultural differences are operating which might provide alternative explanations of the findings. He proposed eliminating plausible rival hypotheses by supplementary variation of a subcultural nature deliberately introduced as part of the design. "The more cultural diversity present in the design, the greater the prospect of achieving a generalized and valid conclusion."³⁰

- E. Semantic and Conceptual³¹ equivalence of the instrument in different cultures.

³⁰ Donald T. Campbell. op. cit., p. 5

³¹ For a complete explanation of the "conceptual equivalence", see: Robert Sears. "Transcultural Variables and Conceptual Equivalence." Studying Personality Cross-Culturally, ed. Bert Kaplan (New York: Harper & Row), 1961. pp. 445-456.

The problems of translating instruments across different cultures are:

1. Test Construction Theory.

It is not sufficient simply to translate a questionnaire or a test to guarantee its efficient interpretation in a culture different from the one where it is originally produced. It is necessary to make an adaptation or even substantial change in an instrument. The confounding of language differences and personality is the study by S.M. Ervin in 1964 of 64 bilingual Frenchmen who were given the Thematic Aperception Test (T.A.T.) on two different occasions, once in English and once in French. The response content and associated personality variables shifted significantly from one language to the other in ways that could be predicted from knowledge of English or French culture.³² Also the investigations of Charles Osgood and his colleagues using the "Semantic Differential Technique" for the comparative study of cultures is providing evidence that exists a universal framework underlying the affective or connotative dimensions of language.³³ Their proposal of creating a "World Atlas of

³² See: S.M. Ervin. "Language and T.A.T. content in bilinguals." Journal of Abnormal Social Psychology, 68, (1964), pp. 500-507.

³³ A classical work on this nature is presented by C. E. Osgood, G.J. Suci, and P.H. Tannenbaum. The Measurement of Meaning, (Urbana, Ill.: University of Illinois Press), 1957.

Affective Meaning" may provide a rich source of information for adaptation of concepts accross different languages.

2. Validity Face: it is a process of validity in adaptation and standardization of instruments to other cultures.

1) General Criteria.

a. Utilizing the same techniques of the original instrument.

a) Same application technique

b) Same statistical criteria

c) Keeping the internal consistency between constructs

b. Modification can be made according to:

a) Items or reactivities which show difficulty level

b) Sociocultural differences and attitudes toward the test situation.

c) Socioeconomical differences and language development

2) Specific Criteria

a. Small sample and application of the translated original test to the sample.

b. Representative Sample

c. Translation, back-translation and adaptation of items.

d. Adminstration of the tentative instrument to the sample.

e. Election of final items or reactivities.

f. General rules in Psychometric theory.

g. Replication in subcultures utilizing the procedure pointed above.

3) Administration of the instrument.

- a. Test familiarity versus non-familiarity.
- b. Syntax of the investigator's role.
- c. Changing administrative procedures according to pertinent cultural differences.

F. Ethical Issues.

The scientific and technological development of some countries, as well as their researchers creates conflict with developing nations when the foreign investigator exploits the natural resources of this developing countries without giving to them any social and scientific satisfaction. Many host nation scholars feel they are ignored or that their research area is being invaded. Herbert C. Kelman pointed out that in some nations there is a growing resentment of academic colonialism where the external investigator is seen as exploiting a natural resource, namely, the social-cultural heritage of the people.³⁴ An example of this resentment is well expressed through the Camelot and Sympathetic projects conducted in Latin America. Science reported that "the Camelot affair has seriously damaged prospects for independent academic research in the hemisphere."³⁵

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Herbert C. Kelman. "Psychological Research on Social Change: Some Scientific and Ethical Issues." Aportaciones de la Psicología a la Investigación Transcultural, ed. C. Hereford, (Mexico: Editorial Trillas), 1966, pp. 53-66.

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Walsh, John. "Social Science: Cancellation of Camelot after Row in Chile brings research under scrutiny." Science, 149 (September 10, 1965) pp. 1211-1213.

H. Types of Cross-Cultural Administrative Designs.

1. The investigator analyzes behavioral characteristics or educational components of his culture in other cultures, societies or nations.
2. The investigator analyzes behavioral characteristics or educational components of other cultures to his culture.
3. The investigator from one culture designs a cross-cultural research and invites scholars from the cultures under study to join a team, acting as the chairman himself.
4. Cross-cultural designs developed by a group of investigators from different cultures.
5. Cross-cultural designs developed by a group of international or national institutions.

SUMMARY

In this report, an attempt is made to highlight some of the issues related to cross-cultural research methodology in education and allied disciplines. An early historical development of cross-cultural research indicates an anthropological influence in research methodology. However, contemporary methodology is the product of an interdisciplinary approach involving the basic issues in scientific research.

Cross-cultural methodology is discussed within the scientific

framework but with emphasis on phenomena resulting from comparing cultural components. Finally, the writer feels that while scientific procedures are undoubtedly the modern trend in cross-cultural research, there are a number of elements present within the system which are ethical and philosophical in nature which in turn may render the prospects of making some scientific evaluations of cultures complicated and highly subjective.

BIBLIOGRAPHY

- Al-Issa, I., and Dennis, W. (eds.) Cross-cultural studies of Behavior. New York: Holt, Rinehart and Winston, 1970.
- Anderson, A. "Methodology of Comparative Education." International Review of Education, 7. 1961, pp. 1-23.
- Angelini, A.L. "Perspectives and Problems in Cross-cultural Research." In Proceedings of VIII Interamerican Congress of Psychology, 1964, pp. 51-60.
- Backstron, C. and Hursh, G. Survey Research. Chicago: Northwestern University Press, 1970.
- Benedict, R. Patterns of Culture. Boston: Houghton Mifflin, 1934.
- Best, John. Research in Education, Englewood Cliffs, N.J.: Prentice-Hall, 1970.
- Boas, Frank. "The limitations of the Comparative Method in Anthropology" Science, 4, 1896, pp. 901-908.
- Brameld, Theodore. Patterns of Educational Philosophy. New York: Holt, Rinehart and Winston, 1971.
- Campbell, D.T. "A Cooperative Multinational Opinion Sample Exchange." Austin: The University of Texas, Unpublished paper.
- Campbell, D.T. and Stanley, J. Experimental and Quasi-Experimental Designs for Research. Chicago: Rand McNally Co., 1970.
- Carey, R. "Conceptual Tools for Research in Comparative Education." Comparative Education Review, 3, 1966, pp. 418-425.
- Dayton, Mitchell. Design of Educational Experiments. New York: McGraw-Hill, 1970.
- Diaz-Guerrero, R. "Sociocultural premises, attitudes and Cross-Cultural Research." XVII International Congress of Psychology, Washington D.C., 1963.
- Edwards, Allen. Techniques of Attitude Scale Construction. New York: Appleton-Century-Crofts, 1957.

- Eggan, Fred. "Social Anthropology and the Method of Controlled Comparison." American Anthropologist, 56, 5, 1954, pp. 743-763.
- Eide, Ingrid (ed.) Students as Links between Cultures: A Cross-Cultural Survey based on UNESCO Studies. Oslo: Universitetsforlaget 1970.
- Ervin, S.M. "Language and T.A.T. content in bilinguals." Journal of Abnormal Social Psychology, 68, (1964), pp. 500-507.
- Escotet, Miguel. Evaluacion Academica y Estadistica. Cumana: Universidad de Oriente, 1966.
- Escotet, Miguel. The Measurement of Student Problems: A Cross-Cultural Study in Five Nations. Lincoln: The University of Nebraska, 1972 (Unpublished Ph.D. dissertation).
- Escotet, Miguel. Estadistica Psicoeducativa. Mexico: Editorial Trillas, 1973.
- Escotet, Miguel. "A Comparison Between Mexican-American and South American Students: A Cross-Cultural Study." Comparative and International Education Society, Annual Convention, 1973, San Antonio, March 25-27.
- Escotet, M., and Nemeth, E. (eds.) Cross-Cultural Research Methodology. (In Press).
- Ford, Clellan (ed.) Cross-Cultural Approaches. New Haven: HRAF Press, 1967.
- Frijda, N. and Jahoda, G. "On the scope and methods of Cross-Cultural Research." International Journal of Psychology, 1, 1966, pp. 110-127.
- Gezi, Kalil (ed.) Education in Comparative and International Perspectives. New York: Holt, Rinehart and Winston, 1971.
- Havighurst, R.J., Dubois, M., Csikszentmihaly, M., and Doll, R. A Cross-National Study of Buenos Aires and Chicago Adolescents. Basel: Bibliotheca Vita Humana, 1965.
- Heermann, E., and Braskamp, L. Readings in Statistics for the Behavioral Sciences. Englewood Cliffs, N.J.: Prentice-Hall, 1970.
- Helmstadter, G.C. Research Concepts in Human Behavior. New York: Appleton-Century-Crofts, 1970.

- Hereford, C. and Natalizio, L. (eds.) Aportaciones de la Psicología a la Investigacion Transcultural, Mexico: Editorial Trillas, 1967.
- Higson, J.M. "The Methodology of Comparative Analysis of Education." Comparative Education Review, 3, 1968, pp. 350-356.
- Hobhouse, L.T., Wheeler, G.C., and Ginsberg, M. The Material Culture and Social Institutions of the Simpler Peoples: An Essay in Correlation. London: Chapman and Hall, 1915.
- Holtzman, W.H. Cross-Cultural Research on Personality Development. Austin: Institute of Latin American Studies, Offprint Series, 25, 1968.
- Holtzman, W.H. "Cross-cultural studies in Psychology." XIth Inter-american Congress of Psychology, Mexico City, 1967.
- Insko, Chester and Schopler, John. Experimental Social Psychology. New York: Academic Press, 1972.
- Kahl, Joseph. The Measurement of Modernism. Austin: Institute of Latin American Studies, 1968.
- Kaplan, B. (ed.) Studying Personality Cross-Culturally. Evanston, Illinois: Row, Peterson and Company, 1961.
- Kardiner, A. The individual and his Society. New York: Columbia University Press, 1939.
- Kazamias, A. "Some Old and New Approaches to Methodology in Comparative Education." Comparative Education Review, 5, 1961, pp. 90-96.
- Kazamias, A. and Massialas, B. Tradicion y Cambio en la Educacion. Mexico: Uteha, 1968.
- Kelman, Herbert C. "Psychological Research on Social Change: Some Scientific and Ethical Issues." In Proceedings of the Xth Interamerican Congress of Psychology, 1966, pp. 53-66.
- Köben, A.J. "Comparativist and Non-Comparativist in Anthropology." In Naroll, R. and Cohen, R. A Handbook of Method in Cultural Anthropology. New York: The Natural History Press, 1970.
- Köben, A.J. "New ways of presenting an old idea: The Statistical Method in Social Anthropology." In Moore, F. (ed.) Readings in Cross-Cultural Methodology. New Haven: HRAF Press, 1961, pp. 166-194.

- Lewis, Oscar. "Comparisons in Cultural Anthropology." In Moore, Frank W. Readings in Cross-Cultural Methodology. New Haven: HRAF, 1961, pp. 50-85.
- Malinowski, Bronislaw. Sex and Repression in Savage Society. New York: Harcourt Brace, 1927.
- Mead, Margaret. Coming of Age in Samoa. New York: William Morrow & Co., 1928.
- Mead, Margaret. Anthropology: A Human Science. Princeton, N.J.: D. Van Nostrand, 1964.
- Merritt, R., and Stein, R. (eds.) Comparing Nations: The Use of Quantitative Data in Cross-National Research, New Haven: Yale University Press, 1966.
- Moehlman, A. Sistemas de Educacion Comparados. Buenos Aires: Troquel, 1968.
- Murdock, George P. "Correlations of Matrilineal and Patrilineal Institutions." In Murdock, G.P. (ed.) Studies in the Science of Society. New Haven: Yale University Press, 1937, pp. 445-470.
- Murdock, George P. Social Structure. New York : Macmillan, 1949.
- Murdock, George P. "Sociology and Anthropology." In Gillin, J. (ed.) For a Science of Social Man, New York: The Macmillan Company, 1954, pp. 14-32.
- Murdock, George P. "The Cross-Cultural Survey." In Moore, F. (ed.) Readings in Cross-Cultural Methodology. New Haven: HRAF, 1961, pp. 40-49.
- Nadel, S.F. The Foundations of Social Anthropology. Glencoe, Illinois: The free Press, 1951.
- Naroll, Raoul. "Cross-Cultural Sampling." Handbook of Method in Cultural Anthropology. New York: The Natural History Press, 1970, pp. 889-926.
- Nieboer, H.J. Slavery as an Industrial System. The Hague: M. Nijhoff 1910.
- Nunnally, J.M. Psychometric Theory. New York: McGraw-Hill, 1967.
- Noah, J., and Eckstein, M. Toward a Science of Comparative Education. London: The Macmillan Company, 1969.

- Osgood, C.E. "The Nature and Measurement of meaning." Psychological Bulletin, 1952, 49, pp. 197-237.
- Osgood, C.E. "Studies on the generality of affective meaning systems." Amer. Psychol., 17, 1962, pp. 10-28.
- Osgood, C.E. "Semantic Differential Technique in the Comparative Study of Cultures." American Anthropologist, 3, 1964, pp. 171-200.
- Osgood, C.E., Suci, G.J., and Tannenbaum, P.H. The Measurement of Meaning. Urbana, Ill.: University of Illinois Press, 1957.
- Osgood, C.E., Archer, W.K., and Miron, M.S. The Cross-Cultural generality of Meaning Systems. Urbana, Ill.: University of Illinois, 1963. (mimeo).
- Pelto, Pertti J. Anthropological Research. New York: Harper & Row, 1970.
- Price-Williams, D.R. (ed.). Cross-Cultural Studies. Baltimore: Penguin Books, 1970.
- Radcliffe-Brown, A.R. "The Comparative Method in Anthropology." Journal of the Royal Anthropological Institute of Great Britain and Ireland, 81, 1, 1951, pp. 15-22.
- Rivers, W.H. "Observations on the Senses of the TODAS," British Journal of Psychology, 1, 1905, pp. 321-396.
- Rokkan, S., Verba, S., Viet, J., and Almsy, E. Comparative Survey Analysis. Paris: Mouton, 1969.
- Schermerhorn, R.A. Comparative Ethnic Relations: A Framework for Theory and Research. New York: Random House, 1970.
- Sears, Robert R. "Transcultural Variables and Conceptual Equivalence." In Kaplan, B. (ed.). Studying Personality Cross-Culturally. Evanston, Ill.: Row, Peterson and Company, 1961, pp. 445-455.
- Segall, M.H., Campbell, D.T., and Herskovits, M.J. "Cultural Differences in the Perception of Geometric Illusions." Science, 139, 1963, pp. 769-771.
- Sheridan, Charles L. Fundamentals of Experimental Psychology. New York: Holt, Rinehart and Winston, 1971.

- Siegel, Sidney. Non Parametric Statistics for the Behavioral Sciences. New York: McGraw-Hill, 1956.
- Spaulding, S. "Research on Content, Methods, and Techniques in Education for Development." Review of Educational Research, 3, 1968, pp. 277-292.
- Strodtbeck, Fred L. "Cross-Cultural Research." In Proceedings of Xth Interamerican Congress of Psychology, 1965, pp. 67-73.
- Triandis, Harry. Attitude and Attitude Change. New York: Wiley & Sons, 1971.
- Tylor, Edward B. "On a Method of investigating the Development of Institutions: Applied to Laws of Marriage and Descent." Journal of the Anthropological Institute of Great Britain and Ireland, 18, 1889, pp. 245-272.
- Vogel, A. Zepper, J., and Bachelor, D. (eds.) Foundations of Education A Social View. Albuquerque: University of New Mexico Press, 1970.
- Walsh, John. "Social Science: Cancellation of Camelot after Row in Chile brings research under scrutiny." Science, 149, September 10, 1965, pp. 1211-1213.
- Whiting, John. "Methods and Problems in Cross-Cultural Research." In Lindzey, G. and Aroonsor (eds.) Handbook of Social Psychology. Reading, Mass.: Addison-Wesley, 1970, pp. 693-728.
- Whiting, John., and Whiting, B.B. "Contributions of Anthropology to the methods of studying Child Rearing." In Mussen, P. (ed.). Handbook of Research Methods in Child Development. New York: Wiley & Sons, 1960, Ch. 21.
- Whiting, B.B. (ed.). Six Cultures; Studies in Child Rearing. New York: Wiley, 1963.
- Wolf, R. "The Measurement of Environments." In Harris, C. (ed.) Proceedings of the 1964 Invitational Conference on Testing Problems. Princeton, N.J.: Educational Testing Service, 1965.